



# ATTACHMENT TO AMENDMENT B

John Ross

**From:** Michael Nemenov [mnemenov@stanford.edu]  
**Sent:** Thursday, June 28, 2007 3:58 PM  
**To:** R.-D. Treede  
**Cc:** John Ross  
**Subject:** follow up our phone conversation  
**Attachments:** United States Patent Application past from Oct 20 2005.doc; Treede.pdf

Dear Rolf Detlef,

Here is a letter that I appreciate your response as soon as you read patent application and refresh your memory regarding paper in Pain. I attached a copy of paper as well as patent application but you can find patent application at USPO official website.

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**To: Dr. Rolf-Detlef Treede**  
Johannes Gutenberg-University; Institute for  
Physiologie und Pathophysiologie  
Saarstr. 21; Mainz;; 55099; Deutschland

Subject: US Patent Application Serial No.  
 10/790,992,  
 Portable Laser and Process for  
 Producing  
 Controlled Pain

This letter is to confirm our recent telephone conversation regarding inventorship in connection with a patent application that I filed on March 2, 2004 in which I claimed an earlier priority based on a provisional patent application I filed on March 3, 2003.

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If you would please confirm that you were not a co-inventor of the invention described and specifically claimed in the attached patent application by signing below the statement at the bottom of this page, I would greatly appreciate it. If you believe that you were a co-inventor of the invention as claimed in the patent application, please let me know.

9/19/2007

I \_\_\_\_\_ hereby confirm that I was not a co-inventor of the  
Print Name  
invention claimed in US Patent Application Serial No. 10/790,992.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Thank you,

Michael

PS. some of picture is better to see at <http://www.patentdebate.com/PATAPP/20050027336>

## John Ross

---

**From:** Michael Nemenov [mnemenov@stanford.edu]  
**Sent:** Thursday, June 28, 2007 4:24 PM  
**To:** vogel@uni-mainz.de  
**Cc:** John Ross  
**Subject:** Fw: follow up our phone conversation  
**Attachments:** United States Patent Application past from Oct 20 2005.doc; Treede.pdf

Dear Hagenf,

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**To: Dr. Hagen Vogel**

Johannes Gutenberg-University; Institute for  
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9/19/2007

**John Ross**

---

**From:** Michael Nemenov [mnemenov@stanford.edu]  
**Sent:** Sunday, July 01, 2007 6:10 AM  
**To:** Ulf Baumgärtner; Ulf Baumgärtner  
**Cc:** John Ross  
**Subject:** Fw: follow up our phone conversation  
**Attachments:** Treede.pdf; nemenov pat ap.pdf

Dear Ulf,

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**To: Dr. Ulf Baumgärtner**  
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Thank you,

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9/19/2007

## John Ross

---

**From:** Michael Nemenov [mnemenov@stanford.edu]  
**Sent:** Sunday, July 01, 2007 6:15 AM  
**To:** wolfgang greffrat  
**Cc:** John Ross  
**Subject:** Fw: follow up our phone conversation  
**Attachments:** Treede.pdf; nemenov pat ap.pdf

Dear Wolfgang,

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I attached a copy of paper as well as patent application.

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**To: Dr. Wolfgang Greffrat**  
Johannes Gutenberg-University; Institute for  
Physiologie und Pathophysiologie  
Saarstr. 21; Mainz;; 55099; Deutschland

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Signature

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**John Ross**

---

**From:** Michael Nemenov [mnemenov@stanford.edu]  
**Sent:** Monday, July 02, 2007 3:10 PM  
**To:** lan@hst.aau.dk  
**Cc:** John Ross  
**Subject:** follow up phone call : diode laser patent application  
**Attachments:** nemenov pat ap.pdf; Treede.pdf

Hello Lars,

As you know I developed some times ago (~ 1994-97) diode laser for pain research. I filed a patent application in US a few years ago.

The patent examiner would like to be sure if any of my co-authors for the Pain paper (see Treede.PDF) are not pretend to any of claims (see nemenov pat ap.PDF) or to see if they are pretend to see their arguments.

I appreciate if you read paper and patent application and you manage to answer on letter below as soon as possible:

---

**To: Prof. Lars Arendt-Nielsen**  
**Fredrik Bajersvej 7-D3**  
**Aalborg University**  
**Center for Sensory-Motor Interaction**  
**DK-9220 Aalborg E**  
**Denmark**

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Signature

\_\_\_\_\_  
Thank you.

With best regards,  
Michael

Michael I. Nemenov, Ph.D.  
Consulting Professor  
Pain Research Center  
Department of Anesthesia, S268  
Stanford University  
300 Pasteur Drive  
Stanford, CA 94305-5117

Phone: (650) 965-8230  
Cell: (650) 996 3380  
Fax: (650) 965-8230  
Email: [mnemenov@stanford.edu](mailto:mnemenov@stanford.edu)

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9/19/2007

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From: Michael Nemenov [mailto:mnemenov@stanford.edu]  
Sent: Tue 03.07.2007 16:09  
To: Ulf Baumgaertner  
Subject: Re: follow up our phone conversation

Dear Ulf,

Your fig 16 is great and I still hope it was not me.  
You was too fast in St. Petersburg and lost  
last sip of Vodka as well as weather and  
traffic jam on June 21 locked me at Frankfurt.

Anything that is easy for you is ok scanned PDF  
fax: +1-(650) 965-8230.

Thank you.

best,  
Michael

----- Original Message -----

From: "Ulf Baumgaertner" <baumgaer@uni-mainz.de>  
To: "Michael Nemenov" <mnemenov@stanford.edu>  
Sent: Tuesday, July 03, 2007 9:19 PM  
Subject: RE: follow up our phone conversation

Dear Mike,

I went through part of the application and think it should be alright (I  
have NO experience with things like that). Most wonderful is Figure 16 B. If  
this really gets published I will have a large sip of Wodka.  
How and where shall I send the signed form you supplied? Fax or regular  
mail?

Best,  
Ulf

(Wolfgang is at a meeting the whole week)

---

From: Michael Nemenov [mailto:mnemenov@stanford.edu]  
Sent: Sun 01.07.2007 15:10  
To: Ulf Baumgärtner; Ulf Baumgaertner  
Cc: John Ross  
Subject: Fw: follow up our phone conversation

Dear Ulf,

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application and refresh your memory regarding paper in Pain.  
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To: Dr. Ulf Baumgärtner

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Thank you,

Michael

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## John Ross

---

**From:** Michael Nemenov [mnemenov@stanford.edu]  
**Sent:** Sunday, July 15, 2007 2:50 PM  
**To:** Ulf Baumgaertner  
**Cc:** John Ross  
**Subject:** Re: follow up our phone conversation

Dear Ulf,

Can you please let me know when is better to call Wolfgang and Hagen and that are numbers?

It is a mandatory to answer to US Patent office before August 20 otherwise I lose it or must pay extension penalties.

Thank you.

Best,  
Michael

----- Original Message -----

From: "Ulf Baumgaertner" <baumgaer@uni-mainz.de>  
To: "Michael Nemenov" <mnemenov@stanford.edu>  
Sent: Thursday, July 05, 2007 5:14 PM  
Subject: RE: follow up our phone conversation

Good!

---

From: Michael Nemenov [mailto:mnemenov@stanford.edu]  
Sent: Wed 04.07.2007 02:26  
To: Ulf Baumgaertner  
Subject: Re: follow up our phone conversation

Dear Ulf,

Thanks! I have received fax (one page with your signature) twice.  
It is combined fax & answering machine and its recognizes automatically if it fax or phone call.

Best,  
Michael

----- Original Message -----

From: "Ulf Baumgaertner" <baumgaer@uni-mainz.de>  
To: "Michael Nemenov" <mnemenov@stanford.edu>  
Sent: Wednesday, July 04, 2007 6:59 PM  
Subject: RE: follow up our phone conversation

Dear Mike,



I was trying to send you the fax today, however the number you gave me (see below) had an answering machine telling me that M Nemenov is not in his office. So it seems to be a telephone number to me, and the fax could not be received. Could you please check?

Ulf

 You forwarded this message on 03.07.2007 14:20.

Attachments can contain viruses that may harm your computer. Attachments may not display correctly.  
The sender of this message has requested a read receipt. [Click here to send a receipt.](#)

**Ulf Baumgaertner**

**From:** Michael Nemenov [mnemenov@stanford.edu] **Sent:** Sun 01.07.2007 15:10  
**To:** Ulf Baumgärtner; Ulf.Baumgaertner  
**Cc:** John Ross  
**Subject:** Fw: follow up our phone conversation  
**Attachments:**  Treede.pdf(290KB)  nemenov\_pat\_ap.pdf(1MB)

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**Dr. med. Ulf Baumgärtner**

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Signature

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Thank you,

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Michael

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**To: Dr. Rolf-Detlef Treede**

Johannes Gutenberg-University; Institute for  
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**John Ross**

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**From:** Michael Nemenov [mnemenov@stanford.edu]  
**Sent:** Monday, July 23, 2007 6:59 PM  
**To:** vogel@uni-mainz.de  
**Cc:** John Ross  
**Subject:** Fw: follow up our phone conversation  
**Importance:** High  
**Attachments:** nemenov pat ap.pdf; Treede.pdf

Dear Hagen,

I am following up on an email I have sent you three weeks ago. Please kindly respond as this matter is of dire importance to me. I need to know if you are planning to make any inventor claims regarding my patent application (see attached file). As it is, I am pressed by a deadline of August 15 after which I will be forced to pay penalties and further delays could result in the loss of the application. Therefore, I appreciate a prompt response.

Again, the patent application and The Pain article are attached for your convenience.

Thank you in advance,

Michael

----- Original Message -----

**From:** Michael Nemenov  
**To:** vogel@uni-mainz.de  
**Sent:** Sunday, July 01, 2007 10:21 PM  
**Subject:** Fw: follow up our phone conversation

Dear Hagen,

I am sorry I did not attach full version of patent application in first email. Here it is.

Thank you.

Best,  
Michael

----- Original Message -----

**From:** Michael Nemenov  
**To:** vogel@uni-mainz.de  
**Cc:** John Ross  
**Sent:** Friday, June 29, 2007 8:24 AM  
**Subject:** Fw: follow up our phone conversation

Dear Hagenf,

9/19/2007

## John Ross

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**From:** Michael Nemenov [mnemenov@stanford.edu]  
**Sent:** Monday, July 23, 2007 7:08 PM  
**To:** wolfgang greffrat  
**Cc:** John Ross  
**Subject:** Fw: follow up our phone conversation  
**Importance:** High  
**Attachments:** Treede.pdf; nemenov pat ap.pdf

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Thank you in advance,

Michael

PS. Ulf told me you have phone/email of Dr. Stefan Schwarz.  
Can you please email it to me?

----- Original Message -----

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**To:** [wolfgang greffrat](#)  
**Cc:** [John Ross](#)  
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invention claimed in US Patent Application Serial No. 10/790,992.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Thank you,

Michael

PS. some of picture is better to see at <http://www.patentdebate.com/PATAPP/20050027336>

9/19/2007

**John Ross**

---

**From:** Michael Nemenov [mnemenov@stanford.edu]  
**Sent:** Monday, July 23, 2007 7:02 PM  
**To:** R.-D. Treede  
**Cc:** John Ross  
**Subject:** Fw: full patent application  
**Importance:** High  
**Attachments:** nemenov pat ap.pdf; Treede.pdf

Dear Rolf-Detlef,

I am following up on an email I have sent you three weeks ago. Please kindly respond as this matter is of dire importance to me. I need to know if you are planning to make any inventor claims regarding my patent application (see attached file). As it is, I am pressed by a deadline of August 15 after which I will be forced to pay penalties and further delays could result in the loss of the application. Therefore, I appreciate a prompt response.

Again, the patent application and The Pain article are attached for your convenience.

Thank you in advance,

Michael

----- Original Message -----

**From:** Michael Nemenov  
**To:** R.-D. Treede  
**Sent:** Sunday, July 01, 2007 10:19 PM  
**Subject:** full patent application

Dear Rolf-Detlef,

I'm sorry I did not attach complete version of patent application as it is on USPO website. Here it is.

Best,  
Michael

----- Original Message -----

**From:** Michael Nemenov  
**To:** R.-D. Treede  
**Cc:** John Ross  
**Sent:** Friday, June 29, 2007 7:57 AM  
**Subject:** follow up our phone conversation

Dear Rolf Detlef,

Here is a letter that I appreciate you response as soon as you read patent application and refresh your memory regarding paper in Pain. I attached a copy of paper as well as patent application but you can find patent application at USPO official website.

---

9/19/2007

**John Ross**

---

**From:** Michael Nemenov [mnemenov@stanford.edu]  
**Sent:** Monday, July 23, 2007 7:09 PM  
**To:** lan@hst.aau.dk  
**Cc:** John Ross  
**Subject:** Fw: follow up phone call : diode laser patent application  
**Importance:** High  
**Attachments:** nemenov pat ap.pdf; Treede.pdf

Dear Lars,

I am following up on an email I have sent you three weeks ago. Please kindly respond as this matter is of dire importance to me. I need to know if you are planning to make any inventor claims regarding my patent application (see attached file). As it is, I am pressed by a deadline of August 15 after which I will be forced to pay penalties and further delays could result in the loss of the application. Therefore, I appreciate a prompt response.

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Thank you in advance,

Michael

----- Original Message -----

**From:** Michael Nemenov  
**To:** lan@hst.aau.dk  
**Cc:** John Ross  
**Sent:** Tuesday, July 03, 2007 7:10 AM  
**Subject:** follow up phone call : diode laser patent application

Hello Lars,

As you know I developed some times ago (~ 1994-97) diode laser for pain research. I filed a patent application in US a few years ago.

The patent examiner would like to be sure if any of my co-authors for the Pain paper (see Treede.PDF) are not pretend to any of claims (see nemenov pat ap.PDF) or to see if they are pretend to see their arguments.

I appreciate if you read paper and patent application and you manage to answer on letter below as soon as possible:

---

**To: Prof. Lars Arendt-Nielsen**  
**Fredrik Bajersvej 7-D3**  
**Aalborg University**  
**Center for Sensory-Motor Interaction**  
**DK-9220 Aalborg E**  
**Denmark**

Subject: US Patent Application Serial No.

9/19/2007

10/790,992,  
Portable Laser and Process for  
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\_\_\_\_\_  
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\_\_\_\_\_  
Thank you.

With best regards,  
Michael

Michael I. Nemenov, Ph.D.  
Consulting Professor  
Pain Research Center  
Department of Anesthesia, S268  
Stanford University  
300 Pasteur Drive  
Stanford, CA 94305-5117

Phone: (650) 965-8230  
Cell: (650) 996 3380

9/19/2007



Fax: (650) 965-8230

Email: [mnemenov@stanford.edu](mailto:mnemenov@stanford.edu)

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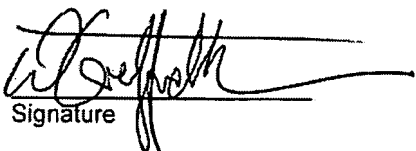
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Signature

July 25<sup>th</sup>, 2007

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Prof. Dr. Rolf-Dieter Treede  
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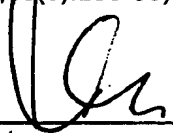
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Dipl. - Phys. H. Vogel

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July 25, 2007

You forwarded this message on 03.07.2007 14:20.

Attachments can contain viruses that may harm your computer. Attachments may not display correctly.  
The sender of this message has requested a read receipt. [Click here to send a receipt.](#)

**Ulf Baumgärtner**

**From:** Michael Nemenov [mnemenov@stanford.edu] **Sent:** Sun 01.07.2007 15:10  
**To:** Ulf Baumgärtner; Ulf Baumgärtner  
**Cc:** John Ross  
**Subject:** Fw: follow up our phone conversation  
**Attachments:** Treede.pdf (290KB) nemenov\_pat\_ap.pdf (1MB)

Dear Ulf,

Here is a letter that I appreciate your response as soon as you read patent application and refresh your memory regarding paper in Pain.  
I attached a copy of paper as well as patent application.

To: Dr. Ulf Baumgärtner  
Johannes Gutenberg-University, Institute for  
Physiologie und Pathophysiologie  
Saarstr. 21, Mainz, 55099, Deutschland

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**Dr. med. Ulf Baumgärtner**

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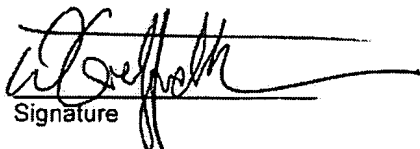
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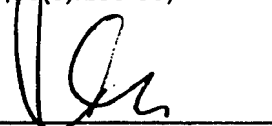
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\_\_\_\_\_  
Signature

Dipl. - Phys. H. Vogel



**John Ross**

---

**From:** Michael Nemenov [mnemenov@stanford.edu]  
**Sent:** Friday, July 27, 2007 7:49 AM  
**To:** John Ross  
**Subject:** Fw: Fw: follow up our phone conversation  
**Attachments:** Nemenov\_WG.pdf; Nemenov\_RDT.pdf

John,

Here two signed letters. I need to get signatures from two other co-authors Dr. Stefan Schwarz with whom I'm not expect to have any problem, besides I don't have his phone number/email and Dr. Lars Arendt-Nielsen with whom could be some problem.

Thank you.

Best,  
Michael

----- Original Message -----

**From:** Wolfgang Greffrath  
**To:** Michael Nemenov  
**Sent:** Friday, July 27, 2007 8:54 PM  
**Subject:** Re: Fw: follow up our phone conversation

Dear Michael,  
sorry for the delay in response. Unfortunately, I am currently rarely in the office due to the relocation of our lab and a congress as well as several external lectures I had to attend.

Please find attached my and RDTs signed declaration regarding your US patent application. For acceleration, I am sending scanned copies by e-mail, only, please let me know in case you might need the originals - together with your postal adress.

I had forewarded your last e-mail to Stefan Schwarz, already, and also sent him the actual form of that declaration this morning that Stefan might wish to sign, instead. I do regret but we neither have the postal adress nor his telephone number.

Best wishes

Wolfgang

Michael Nemenov schrieb:

Dear Wolfgang,

I am following up on an email I have sent you three weeks ago. Please kindly respond as this matter is of dire importance to me. I need to know if you are planning to make any inventor claims regarding my patent application

9/19/2007

(see attached file). As it is, I am pressed by a deadline of August 15 after which I will be forced to pay penalties and further delays could result in the loss of the application. Therefore, I appreciate a prompt response.

Again, the patent application and The Pain article are attached for your convenience.

Thank you in advance,

Michael

PS. Ulf told me you have phone/email of Dr. Stefan Schwarz.  
Can you please email it to me?

----- Original Message -----

**From:** Michael Nemenov

**To:** wolfgang.greffrat

**Cc:** John Ross

**Sent:** Sunday, July 01, 2007 10:15 PM

**Subject:** Fw: follow up our phone conversation

Dear Wolfgang,

Here is a letter that I appreciate your response as soon as you read patent application and refresh your memory regarding paper in Pain.  
I attached a copy of paper as well as patent application.

---

**To: Dr. Wolfgang Greffrat**  
Johannes Gutenberg-University; Institute for  
Physiologie und Pathophysiologie  
Saarstr. 21; Mainz; 55099; Deutschland

Subject: US Patent Application Serial No.  
10/790,992,  
Portable Laser and Process for  
Producing  
Controlled Pain

This letter is to confirm our recent telephone conversation regarding inventorship in connection with a patent application that I filed on March 2, 2004 in which I claimed an earlier priority based on a provisional patent application I filed on March 3, 2003.

I have attached a copy of the patent application. Some of the features of the laser described in the patent application and some of the uses of it were included in the paper entitled "Inward currents in primary nociceptive neurons of the rat and pain sensations in humans elicited by infrared diode laser pulses" published on journal Pain 2002 Sep;99(1-2):145-55 that I co-authored along with all of you. I have also attached a copy of the paper.

The patent examiner who is examining my patent application has cited the paper as prior art against me even though I included a copy of it in my provisional application. The examiner's position is that I have not proven

that one or more of you co-authors on the December 2002 paper were not also co-inventors of the invention claimed in my patent application.

If you would please confirm that you were not a co-inventor of the invention described and specifically claimed in the attached patent application by signing below the statement at the bottom of this page, I would greatly appreciate it. If you believe that you were a co-inventor of the invention as claimed in the patent application, please let me know.

I \_\_\_\_\_ hereby confirm that I was not a co-inventor of the  
Print Name  
invention claimed in US Patent Application Serial No. 10/790,992.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Thank you,

Michael

PS. some of picture is better to see at <http://www.patentdebate.com/PATAPP/20050027336>

**John Ross**

---

**From:** Michael Nemenov [mnemenov@stanford.edu]  
**Sent:** Friday, August 03, 2007 1:03 AM  
**To:** Michael Nemenov; lan@hst.aau.dk  
**Cc:** John Ross  
**Subject:** Re: follow up phone call : diode laser patent application  
**Importance:** High

----- Original Message -----

**From:** Michael Nemenov  
**To:** lan@hst.aau.dk  
**Cc:** John Ross  
**Sent:** Monday, July 23, 2007 7:09 PM  
**Subject:** Fw: follow up phone call : diode laser patent application

Dear Lars,

I am following up on an email I have sent you three weeks ago. Please kindly respond as this matter is of dire importance to me. I need to know if you are planning to make any inventor claims regarding my patent application (see attached file). As it is, I am pressed by a deadline of August 15 after which I will be forced to pay penalties and further delays could result in the loss of the application. Therefore, I appreciate a prompt response.

Again, the patent application and The Pain article are attached for your convenience.

Thank you in advance,

Michael

----- Original Message -----

**From:** Michael Nemenov  
**To:** lan@hst.aau.dk  
**Cc:** John Ross  
**Sent:** Tuesday, July 03, 2007 7:10 AM  
**Subject:** follow up phone call : diode laser patent application

Hello Lars,

As you know I developed some times ago (~ 1994-97) diode laser for pain research. I filed a patent application in US a few years ago.

The patent examiner would like to be sure if any of my co-authors for the Pain paper (see Treede.PDF) are not pretend to any of claims (see nemenov pat ap.PDF) or to see if they are pretend to see their arguments.

I appreciate if you read paper and patent application and you manage to answer on letter below as soon as possible:

---

**To: Prof. Lars Arendt-Nielsen**

**Fredrik Bajersvej 7-D3**  
**Aalborg University**  
**Center for Sensory-Motor Interaction**  
**DK-9220 Aalborg E**  
**Denmark**

Subject: US Patent Application Serial No.  
10/790,992,  
Portable Laser and Process for  
Producing  
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Print Name  
invention claimed in US Patent Application Serial No. 10/790,992.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Thank you.

With best regards,  
Michael

Michael I. Nemenov, Ph.D.  
Consulting Professor

9/19/2007

Pain Research Center  
Department of Anesthesia, S268  
Stanford University  
300 Pasteur Drive  
Stanford, CA 94305-5117

Phone: (650) 965-8230  
Cell: (650) 996 3380  
Fax: (650) 965-8230  
Email: [mnemenov@stanford.edu](mailto:mnemenov@stanford.edu)

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## John Ross

---

**From:** Michael Nemenov [mnemenov@stanford.edu]  
**Sent:** Sunday, August 26, 2007 10:55 PM  
**To:** lan@hst.aau.dk  
**Cc:** John Ross; Michael Nemenov  
**Subject:** Re: follow up phone call : diode laser patent application  
**Importance:** High

Hi Lars,

I re-send you an email that we discussed in first week of July.  
 Can you please inform me if you plan to answer? I am sorry  
 if you answer on time and I missed your email.

Thank you.

Michael

----- Original Message -----

**From:** Michael Nemenov  
**To:** lan@hst.aau.dk  
**Cc:** John Ross  
**Sent:** Monday, July 23, 2007 7:09 PM  
**Subject:** Fw: follow up phone call : diode laser patent application

Dear Lars,

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Michael

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**Cc:** John Ross  
**Sent:** Tuesday, July 03, 2007 7:10 AM  
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**Center for Sensory-Motor Interaction**  
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Print Name  
invention claimed in US Patent Application Serial No. 10/790,992.

\_\_\_\_\_  
Signature



---

Thank you.

With best regards,  
Michael

Michael I. Nemenov, Ph.D.  
Consulting Professor  
Pain Research Center  
Department of Anesthesia, S268  
Stanford University  
300 Pasteur Drive  
Stanford, CA 94305-5117

Phone: (650) 965-8230  
Cell: (650) 996 3380  
Fax: (650) 965-8230  
Email: [mnemenov@stanford.edu](mailto:mnemenov@stanford.edu)

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**John Ross**

---

**From:** Michael Nemenov [mnemenov@stanford.edu]  
**Sent:** Tuesday, August 28, 2007 8:40 AM  
**To:** lan@hst.aau.dk  
**Cc:** John Ross  
**Subject:** Fw: follow up phone call : diode laser patent application  
**Importance:** High  
**Attachments:** nemenov pat ap.pdf; Treede.pdf

Hi Lars,

I asked your secretary to inform you and I left a voice message at your mobile phone today. I attached paper and patent application in case you cannot find them.

Thank you,  
 Michael

Michael I. Nemenov, Ph.D.  
 Consulting Professor  
 Pain Research Center  
 Department of Anesthesia, S268  
 Stanford University  
 300 Pasteur Drive  
 Stanford, CA 94305-5117

Phone: (650) 965-8230  
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**From:** Michael Nemenov  
**To:** lan@hst.aau.dk  
**Cc:** John Ross  
**Sent:** Monday, July 23, 2007 7:09 PM  
**Subject:** Fw: follow up phone call : diode laser patent application

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convenience.

Thank you in advance,

Michael

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**From:** Michael Nemenov

**To:** [lan@hst.aau.dk](mailto:lan@hst.aau.dk)

**Cc:** John Ross

**Sent:** Tuesday, July 03, 2007 7:10 AM

**Subject:** follow up phone call : diode laser patent application

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**Aalborg University**  
**Center for Sensory-Motor Interaction**  
**DK-9220 Aalborg E**  
**Denmark**

Subject: US Patent Application Serial No.  
10/790,992,  
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Producing  
Controlled Pain

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Print Name  
invention claimed in US Patent Application Serial No. 10/790,992.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Thank you.

With best regards,  
Michael

Michael I. Nemenov, Ph.D.  
Consulting Professor  
Pain Research Center  
Department of Anesthesia, S268  
Stanford University  
300 Pasteur Drive  
Stanford, CA 94305-5117

Phone: (650) 965-8230  
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9/19/2007

## John Ross

---

**From:** Michael Nemenov [mnemenov@stanford.edu]  
**Sent:** Monday, September 03, 2007 10:18 PM  
**To:** lan@hst.aau.dk  
**Cc:** John Ross  
**Subject:** follow up phone call of July 2 of 2007 : diode laser patent application  
**Attachments:** nemenov pat ap.pdf; Treede.pdf

----- Original Message -----

**From:** Michael Nemenov  
**To:** lan@hst.aau.dk  
**Cc:** John Ross  
**Sent:** Monday, July 23, 2007 7:09 PM  
**Subject:** Fw: follow up phone call : diode laser patent application

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I am following up on an email I have sent you three weeks ago. Please kindly respond as this matter is of dire importance to me. I need to know if you are planning to make any inventor claims regarding my patent application (see attached file). As it is, I am pressed by a deadline of August 15 after which I will be forced to pay penalties and further delays could result in the loss of the application. Therefore, I appreciate a prompt response.

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Michael

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**Cc:** John Ross  
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**Subject:** follow up phone call : diode laser patent application

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**To:** Prof. Lars Arendt-Nielsen  
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9/19/2007

**Aalborg University**  
**Center for Sensory-Motor Interaction**  
**DK-9220 Aalborg E**  
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invention claimed in US Patent Application Serial No. 10/790,992.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Thank you.

With best regards,  
Michael

Michael I. Nemenov, Ph.D.  
Consulting Professor  
Pain Research Center

9/19/2007

Department of Anesthesia, S268  
Stanford University  
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9/19/2007

## John Ross

---

**From:** Michael Nemenov [mnemenov@stanford.edu]  
**Sent:** Thursday, September 13, 2007 12:25 PM  
**To:** lan@hst.aau.dk  
**Cc:** John Ross  
**Subject:** FedEx

Dear Dr. Arendt-Nielsen,

FedEx delivery system has informed us that you received the Letter from Dr. Nemenov by 2:12 PM, September 12, 2007. Please feel free to email me with any questions regarding the letter.

Regards,

Michael I. Nemenov, Ph.D.  
Pain Research Center  
Department of Anesthesia, S268  
Stanford University  
300 Pasteur Drive  
Stanford, CA 94305-5117

Phone: (650) 965-8230  
Cell: (650) 996 3380  
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9/19/2007



## John Ross

---

**From:** Michael Nemenov [mnemenov@stanford.edu]  
**Sent:** Monday, September 03, 2007 10:43 PM  
**To:** John Ross  
**Subject:** research co-authors/claims  
**Attachments:** History of research and claims.doc

John,

Here is table history of research with explanation which research was done by whom (co-authors) and how this research in my opinion interfere with claims.  
Can you please let me know if it is readable?

Michael

----- Original Message -----

**From:** John Ross  
**To:** 'Michael Nemenov'  
**Sent:** Wednesday, August 29, 2007 4:28 PM  
**Subject:** RE: follow up phone call : diode laser patent application

Michael

Here is the start of a response to the office action. I need your input that we talked about to complete it.

John R. Ross  
V.P. Intellectual Property  
Trex Enterprises Corp.  
Office No. (858) 646-5488  
Fax No. (858) 646-5500

---

**From:** Michael Nemenov [mailto:mnemenov@stanford.edu]  
**Sent:** Tuesday, August 28, 2007 8:40 AM  
**To:** lan@hst.aau.dk  
**Cc:** John Ross  
**Subject:** Fw: follow up phone call : diode laser patent application  
**Importance:** High

Hi Lars,

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Michael I. Nemenov, Ph.D.  
Consulting Professor  
Pain Research Center  
Department of Anesthesia, S268  
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9/19/2007

Stanford, CA 94305-5117

Phone: (650) 965-8230

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**Cc:** John Ross

**Sent:** Monday, July 23, 2007 7:09 PM

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Michael

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**Subject:** follow up phone call : diode laser patent application

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**To:** Prof. Lars Arendt-Nielsen

Fredrik Bajersvej 7-D3

Aalborg University

9/19/2007

**Center for Sensory-Motor Interaction**  
**DK-9220 Aalborg E**  
**Denmark**

Subject: US Patent Application Serial No.  
10/790,992,  
Portable Laser and Process for  
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neurons of the rat and pain sensations in humans elicited by infrared diode laser pulses " published on journal Pain 2002 Sep;99(1-2):145-55 that I co-authored along with all of you. I have also attached a copy of the paper.

The patent examiner who is examining my patent application has cited the paper as prior art against me even though I included a copy of it in my provisional application. The examiner's position is that I have not proven that one or more of you co-authors on the December 2002 paper were not also co-inventors of the invention claimed in my patent application.

If you would please confirm that you were not a co-inventor of the invention described and specifically claimed in the attached patent application by signing below the statement at the bottom of this page, I would greatly appreciate it. If you believe that you were a co-inventor of the invention as claimed in the patent application, please let me know.

I \_\_\_\_\_ hereby confirm that I was not a co-inventor of the  
Print Name  
invention claimed in US Patent Application Serial No. 10/790,992.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Thank you.

With best regards,  
Michael

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9/19/2007

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No.: 10/790,992  
Filed: 03/02/2004  
Applicant: Nemenov  
For: Portable Laser and Process for Producing Controlled Pain

Declaration in Support of  
Applicant Nemenov's Claim That Co-Authors of a Paper Are Not C-Inventors

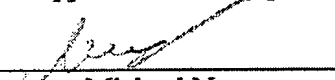
Applicant Michael Nemenov declares as follows:

1. I make this declaration in support of my claim that none of my co-authors of the attached paper, (herein referred to as the Greffrath paper) that was published in the journal Pain (accepted 1 March 2002), were co-inventors of my invention as claimed in Claims 12 through 23 (corrected numbering). My co-authors were Drs. Wolfgang Greffrath, Stefan Schwarz, Ulf Baumgartner, Hagen Vogel, Lars Arendt-Nielsen and Rolf-Detlef Treede.
2. I developed the concept of using diode lasers to evoke single cell (monomodal) sensations (including pain sensations) during the period 1994-1995 however at that time diode lasers had very limited power and my concept could not be confirmed. (If the laser power is insufficient, too much time is required to provide enough energy to stimulate a single nerve. The laser energy dissipates affecting other nerves.) However, I was able to model the use of the diode laser with tests performed with a YAG:Nd laser.
3. During the period 1996 – 1997 diode lasers with sufficient power to stimulate single nerves became available and I developed 20 W diode laser device. Six volunteers were tested in facilities of my lab at Pavlov Medical University in Russia.
4. In May 1997 I met Dr Arendt-Nielsen at a workshop in St Petersburg, Russia and proposed to him experiments to confirm that diode lasers could be used for monomodal skin experiments.
5. During the period February – May 1998, I developed specifications, protocol and test a prototype of the diode laser for nerve research in volunteers. This project was funded at my own my expense.
6. In May 1998 Dr. Arendt-Nielsen invited me to conduct experiments in his lab in Aalborg, Denmark. He agreed to pay for the parts for a new laser built to my specifications. The parts for the diode laser for Dr. Arendt-Nielsen lab were ordered in May of 1998. The confirmation of order was done in the July of 1998.
7. During the period July – December 1998 the diode laser for Dr. Arendt-Nielsen lab was developed, tested and applied to volunteers. I supervised a student of Aalborg University (internship) who developed interface software in accordance with protocols that I developed that simplified the stimulation set up. About 30 volunteers were tested at the Arendt-Nielsen laboratory but these experiments were cancelled before good results could be obtained. It was proposed that I perform in vitro experiments in UK at Professor Bradley lab in Royal Hospital of

London however these experiments were cancelled by Dr. Arendt-Nielsen and did not take place.

8. In November-December of 1998 I contacted Dr. Treede and suggested that I would like to perform nerve stimulation studies in his laboratory in 1999. I told him I thought I could prove that diode lasers could be used to produce single monomodal sensation in skin and activation of single nerve in vitro. Dr Treede asked me if it is possible to produce single nerve experiments in water solutions and I told him that I was confident that we could produce those experiments. We agreed that I would provide the laser and protocol. He e-mailed to me pictures of his set up and described the size and location of DRG cells in his recording set-up. Dr. Treede asked when I could have a laser ready to use in the study. I told him that I could have a laser and protocol by the end of July 1999. The preparation of the laser and the protocol was funded at my own expense.
9. Dr. Treede arranged for a travel grant to support my travel and to cover lodging for the experiment. During September 16 – 28, 1999, I performed nerve sensation experiments in Dr. Treede's laboratory with my diode laser. My work was a part of a team of researchers including Drs. Baumgartner, Vogel, Schwartz and Greffrath who were all employees or otherwise affiliated with Dr Treede's laboratory. Dr. Baumgartner was not present at the actual experiments but he processed EEG laser evoked potentials in human experiments. Dr. Vogel supervised the recording of EEG/LEP data in accordance with a protocol I developed. The actual recording of the data was by a technician in the laboratory whose name I do not remember. The recording of the data was accomplished in one day. Dr. Schwartz prepared and assembled a calibrations patch for use in experiments. Dr. Greffrath prepared all nerve cells and tested the cells to determine if they were capsaicin sensitive. I applied the laser to the cells. Dr. Greffrath wrote most of the 2002 paper published in the journal Pain. A copy of the paper is attached to this declaration. The work was supported by a grant as explained in the last sentence of the Pain paper. My travel grant was from a Germany academic fund (DAAD grant) as a visiting professor.
10. After the work at the Treede laboratory was completed, I continued to develop procedures for nerve stimulation with my diode laser. During the period from September 2002 to March 3, 2003 I collaborated with Dr David Clifford Yeomans. We conducted rat experiments similar to some of the experiments in the Treede laboratory. That collaboration resulted in improvements to the processes that I had previously conceived that had been utilized in work at the Arendt-Nielsen and Treede laboratories. Specifically Dr. Yeomans contributions led to the specific improvements relating laser pulse energy, timing and duration (Tzabazis A, Klyukinov M, Manering N, Nemenov MI, Shafer SL, Yeomans DC. Differential activation of trigeminal C or A $\delta$  nociceptors by infrared diode laser in rats: behavioral evidence. Brain Research 1037 (2005) 148–156).
11. In February 2003 I contacted a San Diego patent attorney, John R. Ross who assisted me in preparing a provision patent application on March 3, 2003 and on March 2, 2004 he filed on my behalf the present patent application.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U. S. C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

 09/23/07  
Michael Nemenov Date